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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,463	07/13/2001	Stefano Faccin	59864.01162	4383

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EXAMINER
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TRAN, TONGOC

ART UNIT	PAPER NUMBER
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2134

MAIL DATE	DELIVERY MODE
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11/27/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/905,463	<b>Applicant(s)</b> FACCIN ET AL.	
	<b>Examiner</b> Tongoc Tran	<b>Art Unit</b> 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-38, 43-45 and 54-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-38, 43-45 and 54-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is in response to Applicant's After-Final Amendment filed on 9/4/2007. Claim 60 has been added. Claims 29-38, 43-45 and 54-60 are pending.

### ***Response to Arguments***

2. Applicant's arguments filed on 9/4/2007 have been fully considered but they are not persuasive. Applicants contend that the cited prior art, Handley does not perform the verification, forwarding a scheduled result to a second network control element by including the scheduled result into the session invitation message...in Handley, the INVITE message does not include an authentication result...in Handley, only the credentials are forwarded"; The second cited prior art, "Hardjono is silent with regards to verifying an authentication result with a Scheduled result,,,Hardjono merely compares sector tags. Thus a comparison of the verification result and the authentication (scheduled) result is not performed. Furthermore, one skilled in the art would not motivated to modify Handley with Hardjono, as the two reference are non-analogous"; The third cited prior art, "Nuutinen also fails to disclose or suggest that if the network control element does not perform the verification, forwarding a scheduled result to a second network control element by including the scheduled result into the session invitation message, as recited in the pending claims". All of the cited references fail to disclose or suggest at least the features of "if the network control element does not perform the verification, forwarding a

scheduled result to a second network control element by including the scheduled result into the session invitation message,” and “extracting the scheduled result from the session invitation message and forwarding the session invitation message to the subscriber equipment” as recited in the present claims.

The cited independent claims broadly interpreted to provide network elements that is configured to determine authentication requirement at the network element or pass on the next network elements, If the verification of authentication is required, verify the authentication based on the authentication information contained in the SIP INVITE packet. Handley teaches the SIP structure encompasses authentication and proxy authentication header field (i.e. Handley, pages 26-27, page 44, 6.11, page 60 and page 73, 6.42). Nuutinen provides detail of various types of servers, “proxy redirect, location, registrar and UASs. Servers are mainly used to route and redirect calls. A SIP server can operate in either proxy or redirect mode, depending on how the next-hop server is connected and if the user is not located on the contacted server. A redirect server informs the caller to contact another server directly. A proxy server contacts one or more next-hop servers itself and passes the call requests further” (Nuutinen, i.e. col. 4, lines 44-53). Nuutinen further provides authentication implementation through SIP security extension such as WWW-authenticate (i.e. Nuutinen, col. 19, line 25-col. 20, line 60). Hardjono discloses an authentication verification by comparing an authentication information (sector verification tag) with a scheduled result (sector tag) to determine whether a data packet is originating from the same sector. In response to applicant's argument

that Hardjono is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Applicant's claimed invention center in providing a scheduled result contained in the SIP INVITE used for verification of authentication of the SIP INVITE.

Hardjono is concerned with authentication to determine whether the originating device is originating from the sector of the receiving device. In Harjono, the authentication result is contained in the data packet used to authenticate the sending device. Handley and Nuutinen clearly disclose authentication mechanism and proxy authentication which encompass determining and performing of authentication verification and routing or forwarding of SIP packets as mentioned above. In addition, in order to perform authentication verification, matching authentication information with predetermined result is a necessary step to determine whether the authentication is a success or a failure. In addition, It is a/so well known that this predetermined result is stored in a separate network element. Therefore, it would have been obvious that one of ordinary skill in the art would derive this information from a separate network element in a most efficient manner upon receiving and determining that the authentication is required and if it is determined that the authentication is not required at the receiving device, it would have been obvious that the

predetermined result be forwarded to the next network element in a most efficient manner.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29-38 and 43-45 and 54-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Handley et al., hereinafter Handley, ("Network Working Group", March 1999) in view of Nuutinen (U.S. Patent No. 6,865,681) and further in view of Hardjono (U.S. Patent No. 6,425,004).

In respect to claim 29, Handley discloses a network control element, wherein during a subscriber equipment terminated call, the network control element is configured to:

send a session invitation message to the subscriber equipment, the session invitation message including authentication information (e.g. Handley, pages 26-27, page 44, 6.11, page 60 and page 73, 6.42),

determine whether it has to perform a verification of the authentication, and if the network control element does not perform the verification, forwarding a scheduled result to a second network control element (e.g. Handley, page 60, 6.27 and page 108, 13.2),

Nuutinen provides detail of the operation of proxy server for rerouting SIP packet and SIP extension of authentication mechanism (i.e. Nuutinen, col. 19, line 25-col. 20, line 60, i.e. WWW-Authenticate).

Hardjono discloses an authentication verification by comparing an authentication information (sector verification tag) with a scheduled result (sector tag) to determine whether a data packet is originating from the same sector. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a network element configured to determining and verifying authentication during a subscriber equipment terminated call disclosed by Handley and Nuutinen with authentication verification by comparing authentication information with a scheduled result taught by Hardjono to provide an efficient transmission of authentication result for authentication verification.

In respect to claim 30, Handley, Nuutinen and Hardjono disclose the network control element according to claim 29, wherein the network control element is adapted to receive a response message as a response to the session invitation message from a subscriber equipment, the response message including a result of an authentication procedure performed by the subscriber equipment (e.g. Handley, pages 42-44, 59-61 and 115)

In respect to claim 31, Handley, Nuutinen and Hardjono disclose the network control element according to claim 30, wherein the network control

element is adapted to verify the authentication procedure result (e.g. Handley, pages 42-44, 59-61 and 115).

In respect to claim 32, Handley, Nuutinen and Hardjono disclose the network control element according to claim 31, wherein the network control element is adapted for forwarding the response message of the subscriber equipment to an originating entity initiating the session invitation without the result of the authentication procedure in case of a positive verification (e.g. Handley, pages 42-44, 59-61 and 115)

In respect to claim 33, Handley, Nuutinen and Hardjono disclose the network control element according to claim 31, wherein the network control element is adapted to forward a failure message to an originating entity initiating the session invitation in case of a negative verification (e.g. Handley pages 42-44, 59-61, and 115).

In respect of claim 34, Handley, Nuutinen and Hardjono disclose the network control element according to claim 29, wherein in the network the SIP (Session Initiation Protocol) protocol is adopted as a control protocol (e.g. Handley, pages 42-44, 59-61 and 115).

In respect to claim 35, Handley, Nuutinen and Hardjono disclose the network control element according to claim 34, wherein the session invitation



message is a SIP INVITE request including an authentication header field (e.g. Handley, pages 114-117).

In respect to claim 36, Handley, Nuutinen and Hardjono disclose the network control element according to claim 34, wherein the response message is a SIP response message including an authorization header field (e.g. Handley, pages 25-26 and pages 114-117).

In respect to claim 37, Handley, Nuutinen and Hardjono disclose the network control element according to claim 31, wherein the network control element performing the verification is adapted to serve an originating entity initiating the session invitation (e.g. Handley pages 25-26, 41-61 and page 112-116).

In respect to claim 38, Handley, Nuutinen and Hardjono disclose the network control element according to claim 31 wherein the network control element performing the verification is adapted to serve the subscriber equipment

In respect to claim 43, Handley and Hardjono disclose the network control element according to claim 29, wherein the network control element is further adapted to receive a response message from the subscriber equipment, the response message including a result (AuthData 2) of the authentication procedure and network authentication information (AuthData3) which is used by

the subscriber equipment to perform an authentication of the network (e.g. Handley pages 25-26, 41-61 and page 112-116).

In respect to claim 44, Handley, Nuutinen and Hardjono disclose the network control element according to claim 43, wherein the network control element is further adapted to determine a network authentication result (AuthData4) in response to the network authentication information (AuthData4) and to send the network authentication result (AuthData4) to the subscriber equipment (e.g. Handley pages 25-26, 41-61 and page 112-116).

In respect to claim 45, Handley, Nuutinen and Hardjono disclose the network control element according to claim 31, wherein the network control element is adapted to repeat the verification for a predetermined number of times, wherein different authentication information (AuthData1) are used (e.g. Handley, pages 114-117).

In respect to claims 54-60, the claimed limitations are method, a network control apparatus and computer program claims that are substantially similar to system claim 29 and 31-33. Therefore, claims 54-60 are rejected based on the similar rationale.

### ***Conclusion***

**4. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tongoc Tran whose telephone number is (571) 272-3843. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT  
November 26, 2007

  
KAMBIZ ZAND  
SUPERVISORY PATENT EXAMINER